What is claimed is:

1. A system for traversing and rendering a graphic primitive, comprising:

a setup engine that outputs representative values of a graphic primitive; and

a raster engine that receives the representative values of the graphic primitive and forms therefrom representative pixels, the raster engine having at least a scan module that scans only pixels within the graphic primitive and assigns data values to each of the pixels and a look-ahead module that identifies pixels that are inside of the primitive.

2. The system according to claim 1, wherein the scan module is structured to perform block mode scanning.

3. The system according to claim 1, wherein the graphic primitive is a triangle, and wherein the representative values are at least one edge function of the triangle and slope values for at least one vertex of the triangle.

4. The system according to claim 1, wherein the graphic primitive is a triangle, and wherein the representative values are at least one edge function of a longest side of the triangle and slope values for at least one vertex of the triangle.

5. The system according to claim 4, wherein the scan module is structured to check a next adjacent pixel while processing a current pixel to determined if the next adjacent pixel is inside the triangle.

6. The system according to claim 1, wherein the scan module comprises:

first and second registers for storing the x and y slope data, respectively for a predetermined current pixel in the triangle,

a first multiplexer having inputs connected to outputs of the first and second registers, and having an output;

an adder having first and second inputs and having an output, the first input of the adder being connected to the output of the first multiplexer;

a third register for receiving a characteristic value for the predetermined pixel, the third register having an input and an output;

a second multiplexer having first and second inputs and an output, the first input of the second multiplexer connected to the output of the third register, and the output of the second multiplexer connected to the second input of the adder;

a third multiplexer having first and second inputs and an output, the first input of the third multiplexer connected to setup engine data and the second input connected to the output of the adder, and the output of the third multiplexer connected to the input of the third register;

a fourth multiplexer having first and second inputs and an output, the first input connected to the output of the third register;

a fourth register having an input connected to the output of the fourth multiplexer, and having an output connected to the second input of the second multiplexer, the output of the fourth register also connected to the second input of the fourth multiplexer.

7.   The system according to claim 6, wherein the third register stores a data value for the current pixel, and wherein the fourth register stores a data value for a next pixel that is inside the triangle.

8.   The system according to claim 6, wherein the data value is one of a color value and a texture value.

9.   A method in a graphics system for traversing and rendering a graphic primitive, comprising:

determining representative values of a graphic primitive;

determining, successively, from the representative values of the primitive data values for each pixel of a set of pixels that are inside of the triangle, and, for each pixel of the set of pixels, looking ahead to a next adjacent pixel to determined if the next adjacent pixel is inside of the triangle; and

storing a characteristic value for the next adjacent pixel when the next adjacent pixel is inside the triangle.

10.   The method according to claim 9, wherein the method performs block mode scanning.

11.   The method according to claim 9, wherein the graphic primitive is a triangle, and wherein the representative values of the primitive are at least one edge function of the triangle and slope values for at least one vertex of the triangle.

12.   The method according to claim 9, wherein the graphic primitive is a triangle, and wherein the representative values of the graphic primitive are at least one edge function of a longest side of the triangle and slope values for at least one vertex of the triangle.

13.   A graphics system, comprising:

at least one graphic triangular primitive;

a first module that generates edge functions for the primitive and that

provides indication of which of the edge functions corresponds to a longest side

5   of the triangular primitive, and that provides starting coordinates for the triangular

primitive;

a second module that forms pixels using the edge functions of the

primitive and that provides at least one data value for each pixel;

a third module that, from a current pixel, determines if a next pixel is

10   within the triangular primitive, the third module only storing a data value of the

next pixel when the next pixel is inside of the triangular primitive.

14.   The system according to claim 13, wherein a data value is assigned to a current

pixel within the triangular primitive, and a data value is saved for a next pixel

15   within the triangular primitive only when the next primitive is within the

triangular primitive.

15.   The system according to claim 13, wherein data values are assigned only to pixels

within the triangular primitive and never to pixels outside of the triangular

20   primitive.

16.   The system according to claim 13, wherein the second module forms a plurality of

data values for each pixel.